

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P591449

Luminaire Tested: **CTN-CA8-230-740-U-T3-SSS-HM-EX120**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591449
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-8)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-740-U-T3-SSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21435 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

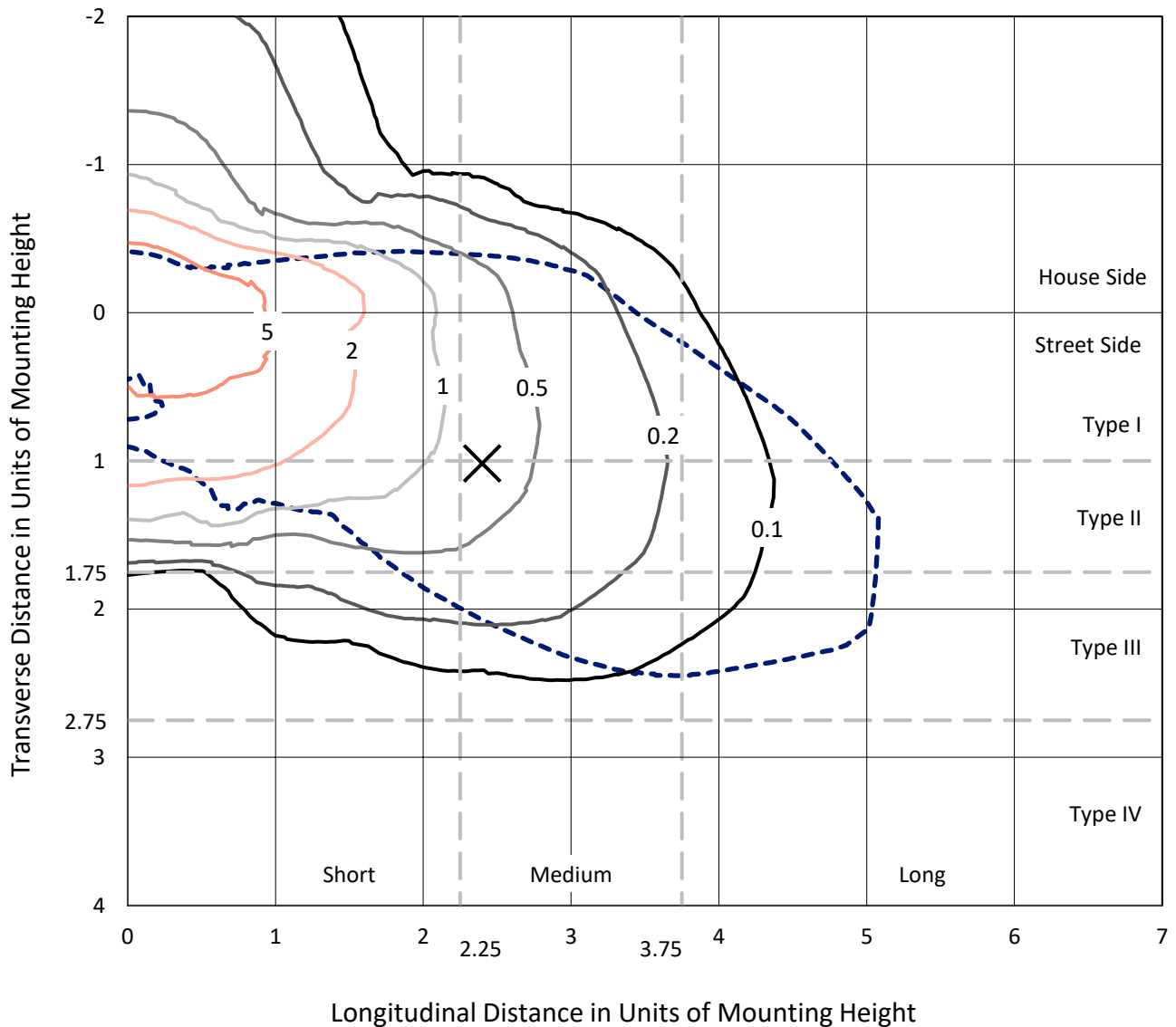
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P591449
 CATALOG NUMBER: CTN-CA8-230-740-U-T3-SSS-HM-EX120

Iso-Footcandle Lines of Horizontal Illumination

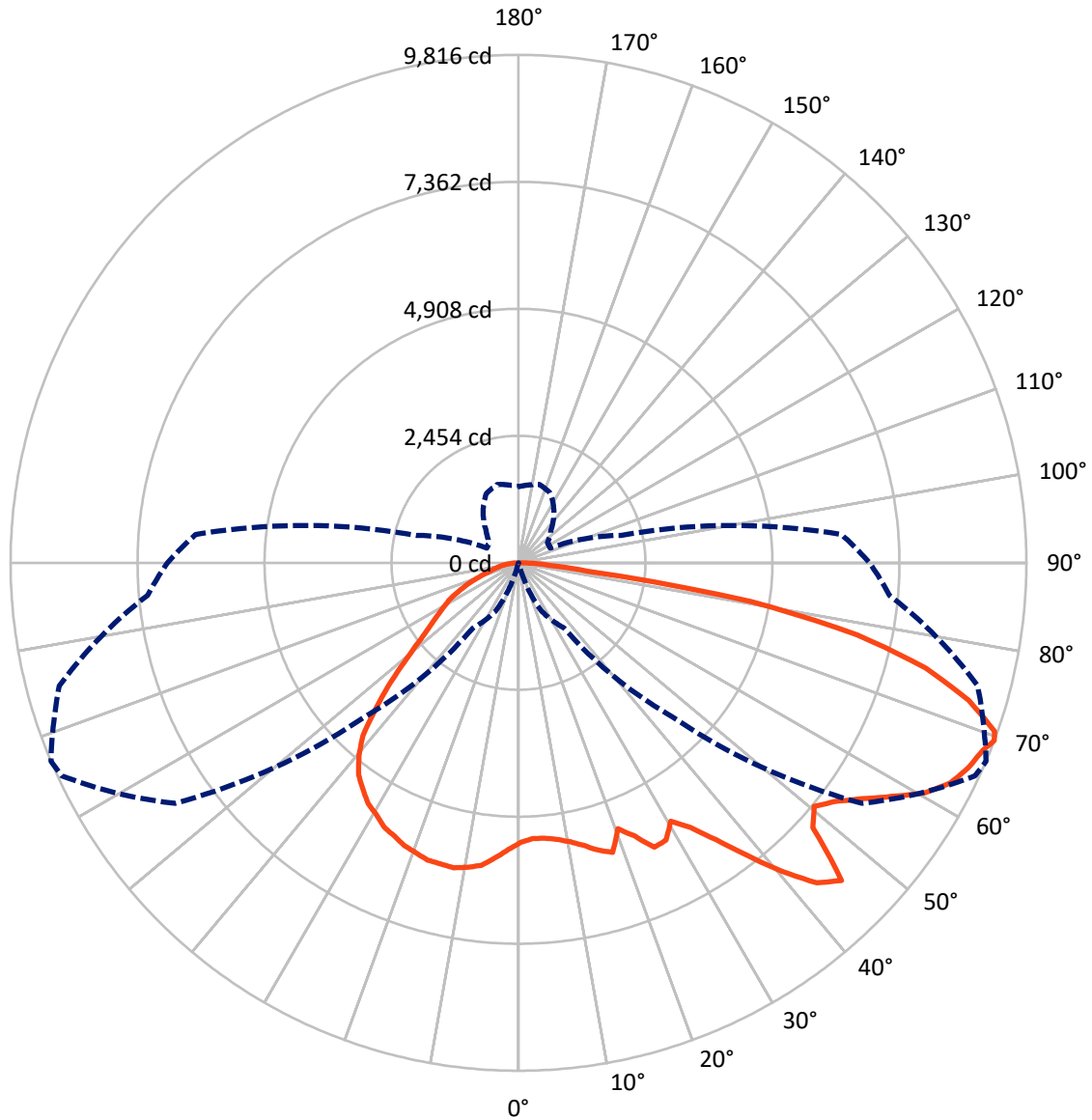
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.7 fc
 Type III - Medium - N/A

REPORT NUMBER: P591449
CATALOG NUMBER: CTN-CA8-230-740-U-T3-SSS-HM-EX120

Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P591449
 CATALOG NUMBER: CTN-CA8-230-740-U-T3-SSS-HM-EX120

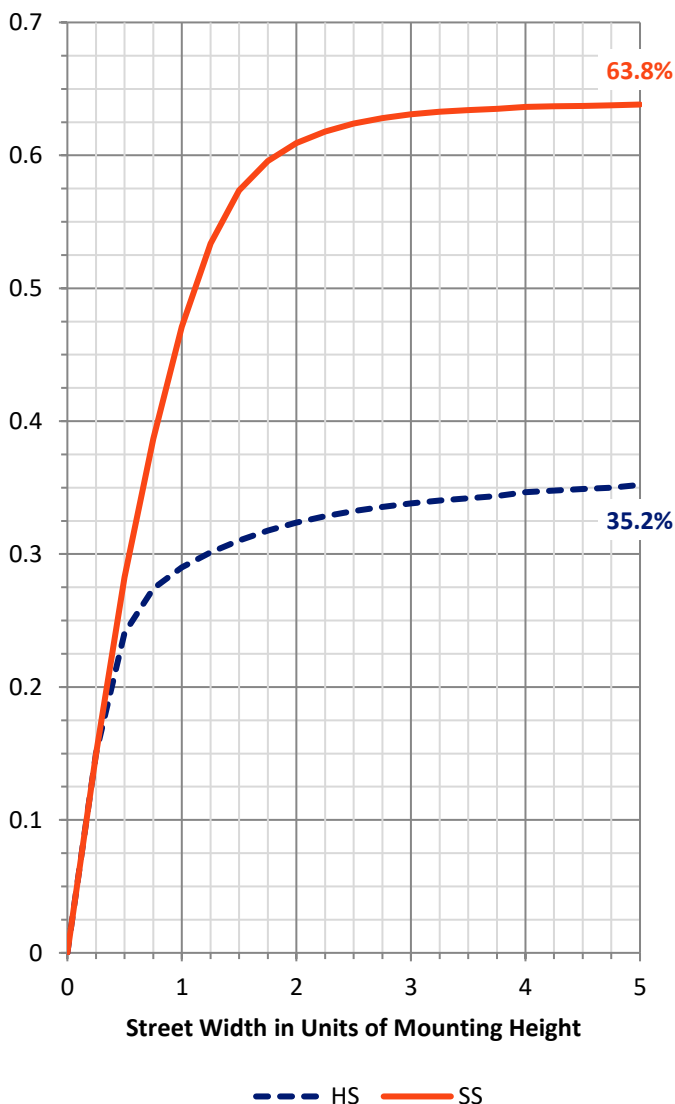
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7754.6	0.0	7754.6
	% Fixture	36.2	0.0	36.2
Street Side	Lumens	13680.4	0.0	13680.4
	% Fixture	63.8	0.0	63.8
Total	Lumens	21435.0	0.0	21435.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	540.0	2.5
10°-20°	1667.1	7.8
20°-30°	2460.5	11.5
30°-40°	3091.5	14.4
40°-50°	3626.2	16.9
50°-60°	3794.5	17.7
60°-70°	3390.0	15.8
70°-80°	2385.9	11.1
80°-90°	479.2	2.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	21435.0	100.0
0°-180°	21435.0	100.0

Coefficient of Utilization

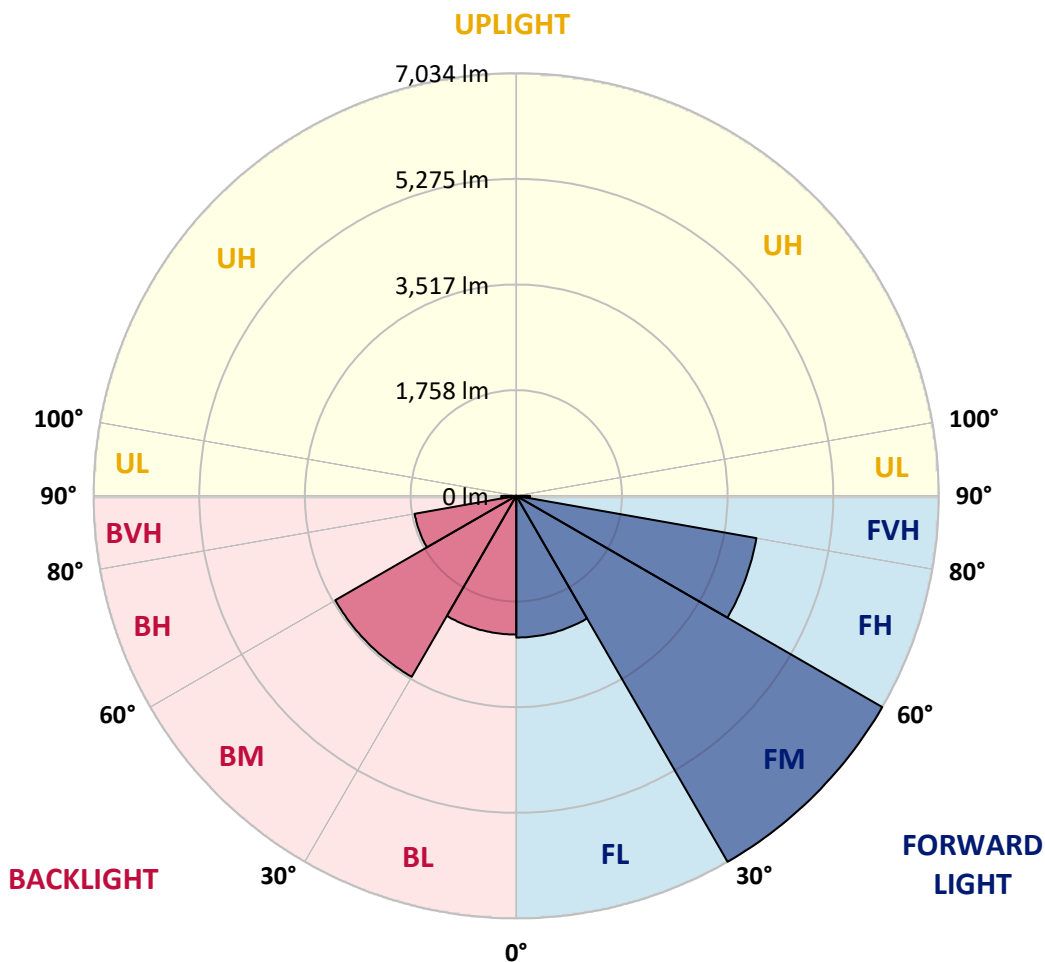


REPORT NUMBER: P591449
 CATALOG NUMBER: CTN-CA8-230-740-U-T3-SSS-HM-EX120

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2358.8	11.0			
FM	(30°-60°)	7034.0	32.8			
FH	(60°-80°)	4058.6	18.9			G2/5000
FVH	(80°-90°)	229.0	1.1			G3/500
BL	(0°-30°)	2308.8	10.8	B3/2500		
BM	(30°-60°)	3478.2	16.2	B3/5000		
BH	(60°-80°)	1717.3	8.0	B3/2500		G3/2500
BVH	(80°-90°)	250.2	1.2			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
 Type III Medium





REPORT NUMBER: P591449

CATALOG NUMBER: CTN-CA8-230-740-U-T3-SSS-HM-EX120

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	5399.7	5399.7	5399.7	5399.7	5399.7	5399.7	5399.7	5399.7	5399.7	5399.7	5399.7
2.5°	5271.1	5240.1	5254.5	5295.5	5210.2	5271.1	5249.0	5311.0	5334.3	5331.0	5419.6
5°	5313.2	5278.9	5284.4	5315.5	5222.4	5270.0	5249.0	5317.7	5344.3	5336.5	5457.3
7.5°	5462.8	5425.1	5412.9	5422.9	5322.1	5358.7	5313.2	5368.6	5397.4	5397.4	5534.8
10°	5698.8	5653.4	5626.8	5625.7	5507.1	5490.5	5435.1	5460.6	5481.6	5499.4	5652.2
12.5°	5945.8	5908.2	5873.8	5855.0	5698.8	5660.0	5579.1	5598.0	5604.6	5629.0	5780.8
15°	6170.7	6133.1	6123.1	6093.2	5938.1	5873.8	5760.8	5752.0	5760.8	5775.2	5925.9
17.5°	6084.3	6086.5	6141.9	6147.5	5945.8	5797.4	5718.7	5868.3	5882.7	5996.8	6094.3
20°	5920.3	5839.5	5549.2	5390.8	5414.1	5606.8	5463.9	5457.3	5487.2	5689.9	6184.0
22.5°	4931.0	4886.7	5046.3	5097.2	5281.1	5354.2	5694.3	5703.2	5733.1	5733.1	5877.1
25°	4257.5	4486.8	4797.0	5350.9	5293.3	5307.7	5446.2	6034.5	6091.0	6089.8	6068.8
27.5°	4401.5	4372.7	4836.9	5184.7	5595.7	5570.3	5419.6	5819.5	6069.9	6499.7	6400.0
30°	4574.3	4553.3	4587.6	5175.9	5857.2	5891.5	5752.0	5711.0	5796.3	6699.2	6778.9
32.5°	4734.9	4709.5	4748.2	4838.0	5490.5	6222.8	6115.3	6065.5	6096.5	6278.2	7266.4
35°	4876.8	4874.5	4918.8	5025.2	5581.3	6338.0	6487.6	6484.2	6567.3	6723.5	7337.3
37.5°	4977.6	4976.5	5011.9	5136.0	5261.2	5853.9	6836.5	7034.8	7167.8	7399.3	7167.8
40°	4976.5	4994.2	5087.2	5246.8	5412.9	5591.3	6990.5	7681.8	7841.4	8006.4	7620.9
42.5°	4872.3	4882.3	5046.3	5342.0	5548.1	5702.1	6379.0	8276.7	8455.1	8442.9	7977.6
45°	4775.9	4780.4	4963.2	5326.5	5661.1	5939.2	6253.8	8274.5	8756.4	8831.8	8313.3
47.5°	4650.7	4650.7	4831.3	5236.8	5763.0	6206.2	6588.4	7147.8	7650.8	9168.6	8591.4
50°	4490.1	4510.1	4288.5	5143.7	5811.8	6459.9	6872.0	7332.9	7402.6	8199.2	8849.5
52.5°	4234.2	4223.1	3351.2	5040.7	5831.7	6643.8	7166.7	7622.0	7659.7	7579.9	8596.9
55°	2668.8	2975.7	2963.5	4920.0	5819.5	6762.3	7392.7	7940.0	8046.3	7948.8	7232.0
57.5°	1611.9	1538.8	2532.5	4574.3	4674.0	6854.3	7699.5	8423.0	8516.0	8290.0	7353.9
60°	629.3	593.8	641.4	2081.6	3353.5	6376.8	8117.2	8935.9	9024.5	8614.6	7456.9
62.5°	78.7	67.6	57.6	1441.3	2131.5	4737.2	8338.8	9349.1	9365.8	8849.5	7476.9
65°	11.1	12.2	22.2	1285.1	1936.5	4656.3	8416.3	9517.5	9551.9	9019.0	7409.3
67.5°	4.4	5.5	17.7	1117.8	1699.4	4441.4	8224.7	9633.9	9673.7	9183.0	7343.9
69°	4.4	5.5	17.7	1004.8	1537.7	4204.3	8101.7	9736.9	9815.5	9186.3	7194.4
70°	4.4	5.5	16.6	923.9	1411.4	4003.8	7983.2	9697.0	9760.1	9097.7	7028.2
72.5°	4.4	5.5	16.6	711.2	1073.5	3215.0	7233.1	9132.0	9099.9	8539.3	6381.2
75°	5.5	5.5	16.6	499.6	744.5	2286.6	6104.2	8109.5	8123.9	7602.1	5367.5
77.5°	5.5	5.5	16.6	318.0	469.7	1322.8	4420.3	6650.4	6691.4	6333.6	4019.3
80°	5.5	5.5	16.6	145.1	291.4	691.3	2173.6	4333.9	4554.4	4251.9	2205.7
82.5°	5.5	5.5	15.5	90.8	159.5	311.3	857.5	1359.3	1346.0	1325.0	701.3
85°	4.4	4.4	12.2	64.3	106.4	180.6	476.4	609.3	601.6	532.9	362.3
87.5°	2.2	2.2	6.6	26.6	44.3	82.0	238.2	277.0	263.7	226.0	155.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P591449

CATALOG NUMBER: CTN-CA8-230-740-U-T3-SSS-HM-EX120

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5399.7	5399.7	5399.7	5399.7	5399.7	5399.7	5399.7	5399.7	5399.7	5399.7	5399.7
2.5°	5460.6	5468.3	5504.9	5552.5	5566.9	5629.0	5639.0	5740.9	5756.4	5781.9	5792.9
5°	5516.0	5545.9	5625.7	5737.5	5832.8	5930.3	5933.6	6057.7	6089.8	6083.2	6115.3
7.5°	5594.6	5644.5	5766.4	5921.5	5955.8	6082.1	6073.2	6196.2	6198.4	6180.7	6229.4
10°	5715.4	5777.4	5888.2	5983.5	6048.9	6130.8	6119.8	6236.1	6219.5	6200.6	6254.9
12.5°	5839.5	5871.6	5939.2	6045.5	6059.9	6088.7	6074.3	6181.8	6164.1	6140.8	6194.0
15°	5948.0	5963.5	5963.5	6021.2	5984.6	6007.9	5959.1	6045.5	6004.5	5993.5	6044.4
17.5°	6088.7	6063.3	6011.2	6006.8	5911.5	5876.0	5802.9	5826.2	5748.6	5756.4	5783.0
20°	6247.2	6190.7	6053.3	5915.9	5739.8	5655.6	5510.4	5499.4	5427.4	5414.1	5439.5
22.5°	6305.9	6355.7	6104.2	5838.4	5534.8	5346.5	5174.8	5092.8	4987.5	4920.0	4928.8
25°	6484.2	6574.0	6181.8	5699.9	5293.3	4983.1	4725.0	4537.7	4379.3	4298.5	4315.1
27.5°	6725.7	6872.0	6226.1	5603.5	4976.5	4571.0	4138.9	3893.0	3729.0	3644.8	3642.6
30°	7071.4	7255.3	6311.4	5401.9	4624.2	4029.2	3496.4	3206.1	3072.1	3016.7	3021.1
32.5°	7503.5	7725.0	6488.7	5233.5	4240.8	3449.8	2842.7	2589.0	2528.1	2518.1	2512.6
35°	8076.2	8295.6	6629.4	4974.2	3743.4	2792.9	2282.2	2102.7	2112.7	2110.5	2117.1
37.5°	7983.2	8815.2	6790.0	4720.5	3148.5	2189.1	1844.6	1743.8	1747.1	1785.9	1793.6
40°	7633.1	8360.9	7029.3	4300.7	2452.8	1681.7	1454.6	1431.3	1526.6	1611.9	1627.4
42.5°	7907.8	8087.3	7061.4	3847.6	1794.7	1289.5	1216.4	1312.8	1466.8	1565.4	1583.1
45°	8182.6	8327.7	6875.3	3169.6	1287.3	1103.4	1157.7	1296.2	1466.8	1572.0	1584.2
47.5°	8461.7	8460.6	6658.2	2541.4	1052.5	1054.7	1143.3	1297.3	1475.7	1582.0	1588.7
50°	8639.0	8568.1	6091.0	1990.8	979.3	1025.9	1135.5	1303.9	1473.4	1551.0	1554.3
52.5°	8727.6	8622.4	5590.2	1590.9	945.0	1002.6	1136.7	1319.4	1461.3	1504.5	1502.2
55°	8578.1	8592.5	5175.9	1322.8	912.9	983.8	1142.2	1330.5	1466.8	1511.1	1511.1
57.5°	8392.0	8395.3	4845.7	1120.0	880.7	968.3	1148.8	1347.1	1568.7	1651.8	1639.6
60°	8261.2	8111.7	4378.2	992.6	844.2	953.9	1157.7	1419.2	1808.0	1892.2	1863.4
62.5°	8046.3	7843.6	3897.4	904.0	803.2	942.8	1163.2	1520.0	1840.1	1844.6	1773.7
65°	7669.6	7379.4	3146.3	816.5	761.1	927.3	1159.9	1557.6	1695.0	1628.5	1608.6
67.5°	7124.6	6745.7	2466.1	729.0	714.6	904.0	1182.1	1488.9	1600.8	1546.6	1520.0
69°	6784.5	6264.9	2047.3	676.9	684.7	886.3	1193.2	1475.7	1567.6	1501.1	1470.1
70°	6526.3	5848.3	1733.8	642.6	659.2	870.8	1171.0	1467.9	1552.1	1470.1	1433.6
72.5°	5541.5	4701.7	1110.1	562.8	592.7	832.0	1111.2	1419.2	1517.8	1462.4	1416.9
75°	4284.1	3453.2	707.9	489.7	525.1	774.4	1049.1	1384.8	1533.3	1433.6	1333.8
77.5°	2883.7	1928.8	540.6	411.0	445.4	699.1	950.5	1288.4	1480.1	1392.6	1269.6
80°	1313.9	735.6	417.7	333.5	360.1	562.8	819.8	1140.0	1399.2	1398.1	1309.5
82.5°	526.2	491.9	310.2	254.8	283.6	419.9	649.2	976.0	1234.1	1287.3	1374.8
85°	306.9	310.2	206.1	177.3	211.6	309.1	463.1	754.4	1003.7	1110.1	1184.3
87.5°	125.2	139.6	96.4	93.1	116.3	165.1	212.7	365.6	540.6	663.6	709.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)